AMENDMENTS TO THE DRAWINGS

The attached sheets of drawings include changes to Figures 1-49. In each of the figures, "Replacement Sheet" is added in the top margin pursuant to 37 C.F.R. § 1.121(d).

Attachment: Replacement Sheets 1-54 for Figures 1-49

REMARKS

The specification has been amended to correct a typographical error on page 38 of the specification. The specification has also been amended to correct editorial errors in the equation expressing $\sigma_m^{"}(k)$ on pages 7, 16 and 36 of the specification. The error and its correction would be apparent to one skilled in the art, for example, by comparing equation (22) with equation (19) on page 36 of the instant specification, in view of the discussion therein that equation (22) provides a means for error computation for equation (19) (as variance σ^2) and that variance (σ^2) is known in the art to be routinely expressed as the square of a corresponding standard deviation (σ).

Claims 1-18, 20-59, and 66-70 are pending in the application. In the Office Action mailed August 30, 2007 (hereinafter "Office Action"), the Examiner objected to the replacement drawings submitted on September 01, 2004 for lacking proper labels, objected to claim 66 for a grammatical error, and rejected claims 1-18, 20-59, and 66-70 under 35 U.S.C. § 112.

Claims 1, 4, 6-8, 10-14, 21, 22-24, 26-29, 30, 32-42, 44, 46-48, 50, 51, 53, 54, 66, 67, and 70 have been amended for purposes of clarity. Upon entry of the instant Amendment, claims 1-18, 20-59, and 66-70 will be pending.

Claims 4, 6-8, 10, 11, 13, 14, 24, 26-28, 32-34, 37, 42, 44, 46-48, 50, 51, 53, 54, and 67 are amended to correct grammatical errors to add the word "the" in front of "equation." Claim 24 also has been amended to correct grammatical errors to add the word "a" in front of "feature." Claim 12 is amended to correct a typographical error. Support for the amendment is found at page 36, lines 5-8 of the specification.

Claims 13 and 53 have been amended to correct editorial errors in equations expressing $\sigma_m^{"}(k)$. The error and its correction would be apparent to one skilled in the art, for example, by comparing equation (22) with equation (19) on page 36 of the instant specification, in view of the discussion therein that equation (22) provides a means for error computation for equation (19) (as variance σ^2) and that variance (σ^2) is known in the art to be routinely expressed as the square of a corresponding standard deviation (σ).

Claim 21 is amended to replace "first experiment profiles" with "pre-experiment profiles" and to replace "first reference profiles" with "pre-reference profiles." Claim 21 is

also amended to recite limitations for "pre-experiment profiles" and "pre-reference profiles." Support for the amendments is found, for example, at page 34, lines 4-8, and 12 and page 38, lines 8-9 of the specification. Claim 21 is further amended to replace "a first difference" with "first differences" and to replace "a second difference" with "second differences." Support for the amendment is found, for example, at page 38, lines 11-15 and equations 30 and 31 on page 39 of the specification. Claims 22-24 are amended to be consistent with the language of claim 21.

Support for the amendments to claims 29 and 35 is found, for example, at page 38, line 7 and page 40, lines 22-23 of the specification.

Support for the amendments to claim 36 is found, for example, at page 11, lines 21-22; page 13, lines 1-2; and page 40, lines 7-10 and 17-18 of the specification.

Support for the amendments to claim 38 is found, for example, at page 11, lines 21-22; page 13, lines 1-2 and 15-17; and page 40, lines 7-10 and 17-18 of the specification.

Support for the amendments to claim 39 is found, for example, at page 13, lines 1-19 of the specification. Claims 40-42 are amended to be consistent with the language of claim 39.

Support for the amendments to claim 42 is found, for example, at page 39, lines 5-9 of the specification.

Support for the amendments to claim 66 is found, for example, at page 25, lines 7-11 of the specification.

No new matter has been added by these amendments. Entry of the foregoing amendments and consideration of the following remarks are respectfully requested.

THE OBJECTION TO THE DRAWINGS SHOULD BE WITHDRAWN

In the Office Action, the drawings were objected to because the replacement drawings submitted on September 1, 2004 did not contain the phrase "Replacement Sheet" in the top margin pursuant to 37 C.F.R. § 1.121(d). Applicant has amended the replacement drawing sheets submitted herewith to include "Replacement Sheet" in the top margin pursuant to 37 C.F.R. § 1.121(d). Accordingly, the Examiner's objection has been overcome. Applicant respectfully requests that the objection to the drawings be withdrawn.

THE OBJECTION TO CLAIM 66 SHOULD BE WITHDRAWN

In the Office Action, claim 66 was objected to because there is no colon after "method comprising" in line 5 (Office Action, page 3, second paragraph).

Applicant has amended claim 66 to insert a colon after "method comprising" in line 5. Thus, the objection based on this informality has been overcome in light of the amendment. Accordingly, Application respectfully requests that the objection of claim 66 over this informality be withdrawn.

CLAIM REJECTIONS UNDER 35 U.S.C. § 112 SHOULD BE WITHDRAWN

Claims 1-18, 20-59 and 66-70 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection as follows.

In the instant Office Action, the Examiner contends that:

> [c]laim 30 recites an experiment [*sic*] profile XA_m in the preamble and after step (c) and a processed profile A_m in step (a). However, in step (d) the claim recites 'said experimental profile A_m.' It is not clear whether XA_m, or A_m is intended to be an experiment [*sic*] profile and what profile is used in step (d) for generating an error-adjusted experimental profile A'_m

(Office Action, page 4, first paragraph). Applicant respectfully points out that step (d) of independent claim 30 recites "said ***processed*** experiment profile A_m" (emphasis added). The Examiner's contention is thus erroneous. Claim 30 recites an experiment profile XA_m and a processed experiment profile A_m, which are consistently used throughout claim 30. In addition, in claim 30 and its dependent claims 31-59 and 70, the phrase "experiment profile(s)" is always correctly accompanied by the symbol XA_m, and the phrase "processed experiment profile" is always correctly accompanied by the symbol A_m. As such, it is clear that in claim 30 and its dependent claims 31-59 and 70, XA_m is intended to be an experiment profile, and A_m is intended to be a processed experiment profile. Furthermore, Applicant respectfully points out that step (d) of claim 30 recites "a first error-corrected ***processed*** experiment profile A'_m" (emphasis added). It is also clear that in step (d) of claim 30, the processed experiment profile A_m, ***not*** the experiment profile XA_m, is used to generate a first error-corrected processed experiment profile A'_m. Accordingly, the Examiner's rejection

based on the allegedly unclear definition of experiment profile XA_m and processed experiment profile A_m should be withdrawn.

Similarly, the Examiner also contends that:

> [c]laim 30 also recites XC_m being a reference profile and C_m being a processed reference profile in the preamble, and in step (a). Claim 30 further recites that C_m stands for a reference profile in step (b). Thus, it is not clear whether XC_m or C_m is intended to be a reference profile. Therefore, the relationship of an experiment profile XA_m [*sic*] processed profile Am, a reference profile XC_m and a processed reference [*sic*] profile XC_m is not clear

(Office Action, page 4, second paragraph). Applicant respectfully points out that step (b) of claim 30 recites "calculating an average ***processed*** reference profile $\overline{C}$ of ***processed*** reference profiles $\{C_m\}$" (emphasis added). The Examiner's contention is thus erroneous. Claim 30 recites a reference profile XC_m and a processed reference profile C_m, which are consistently used throughout claim 30. In addition, in claim 30 and its dependent claims 31-59 and 70, the phrase "reference profile(s)" is always correctly accompanied by the symbol XC_m and the phrase "processed reference profile" is always correctly accompanied by the symbol C_m. As such, it is clear that, in claim 30 and its dependent claims 31-59 and 70, XC_m is intended to be a reference profile, and C_m is intended to be a processed reference profile. As discussed above, XA_m is intended to be an experiment profile; A_m is intended to be a processed experiment profile. As such, contrary to the Examiner's contention, the relationship of experiment profile XA_m, processed experiment profile A_m, reference profile XC_m, and processed reference profile C_m is clear. Accordingly, the Examiner's rejection based on the allegedly unclear definitions of experiment profile XA_m, processed experiment profile A_m, reference profile XC_m, and processed reference profile C_m should be withdrawn.

The Examiner contends that:

> [c]laims 43 and 45 recite "experimental profile A_m" and "reference profile C_m." Claims 43 and 45 depend from claim 30, which recites a processed experiment profile identified as Am and a processed reference profile identified as C_m. Thus, it is not clear what "profiles" are intended in claims 43 and 45.

(Office Action, page 4, third paragraph). Applicant respectfully points out that claim 43 recites "said ***processed*** experiment profile A_m and said ***processed*** reference profile C_m comprise transformed measurements" (emphasis added), and claim 45 recites "each ***processed*** profile pair $\{A_m, C_m\}$" and "said ***processed*** experiment profile A_m" (emphasis

added). Therefore, claims 43 and 45 are consistent with claim 30, from which they both ultimately depend and which recites ***processed*** experiment profile A_m and ***processed*** reference profile C_m. The Examiner's contention is thus erroneous.

The Examiner contends that "[p]roviding a symbol with a definition and using that symbol for the previous claims, including the instant claim 30, then switching the definition of these prior used symbols within a preamble, makes the instant claim unclear" (Office Action, page 4, fourth paragraph). Applicant respectfully points out that in instant claim 30 and its dependent claims 31-59 and 70, XA_m has been consistently used as an experiment profile; XC_m has been consistently used as a reference profile; A_m has been consistently used as a ***processed*** experiment profile; and C_m has been consistently used as a ***processed*** reference profile. Therefore, there has ***not*** been switching of definition of these symbols (*e.g.*, XA_m, XC_m, A_m, and C_m) within a preamble among claims 30-59, and 70. Accordingly, claims 30-59 are definite.

Insofar as the Examiner's contention refers to claims not within the group of claims 30-59 and 70, *i.e.*, that the Examiner refers to claims 1-29 and 66 when he states "switching the definition of these prior used symbols within a preamble," Applicant respectfully points out that there is no switching of definitions of the prior used symbols insofar as claims directed to the same embodiment of the invention are concerned. Specifically, claim 1 and its dependent claims 2-29 are directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. More specifically, the methods as recited in claims 30-59 and 70 are directed to methods that specify a processing step while claims 1-29 do not require such a processing step to be included in the claimed method. Claim 66 also is directed to a different embodiment of the invention than that claimed in claims 30-59 and 70. More specifically, claim 66 does not require such a processing step to be included in the claimed method. The symbols (*e.g.*, XA_m, XC_m, A_m, and C_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the instant application expressly discloses that A_m and C_m may be either measured profiles (*i.e.*, unprocessed profiles; see page 34, line 12 of the specification) or processed profiles (*e.g.*, as transformed, normalized or detrended profiles; see, for example, page 36, lines 19, 24 and page 38, lines 8-9 of the specification). As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes

clear to one skilled in the art the meaning of the symbols contained therein. Accordingly, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 1 recites the limitation "a differential reference profile computed between C_m and $\overline{C}$" (*i.e.*, C average) in lines 12 and 13. The Examiner contends that "[i]t is unclear what mathematical relationship is involved when computing between two variables" (Office Action, page 5, second paragraph). Claim 1 in lines 14-17, also recites the limitation "adjusting an experiment profile A_m... based on said differential reference profile." The Examiner further contends that "[i]t is unclear what the limits of adjustment are and how are the adjustments based" (Office Action, page 5, third paragraph). Applicant submits that, during examination, the pending claims must be given their broadest reasonable interpretation which is consistent with the specification and with the interpretation that those skilled in the art would reach. *In re Hyatt*, 211 F.3d 1367, 1372, 54 U.S.P.Q.2d 1664, 1667 (Fed. Cir. 2000); *see also In re Cortright*, 165 F.3d 1353, 1358, 49 U.S.P.Q.2d 1464, 1468 (Fed. Cir. 1999). The instant application provides by way of illustration a method for computing the differential profile by subtracting average profile $\overline{C}$ from reference profile C_m (*e.g.*, $C_{diff}(m,k) = C_m(k) - \overline{C}(k)$; see, for example, page 34, lines 23-27 of the specification). However, the scope of the invention should not be limited to such subtracting. Any of the methods applicable for computing the differences between two variables that are known to one skilled in the art may be used to compute the differential profile. Such methods for computing a differential profile based on two existing profiles are known in the art. For example, United States Patent No. 6,691,042, which is incorporated by reference into the present application (see page 4, lines 11-20 and page 68, lines 5-8 of the specification), discloses various methods for computing differential profiles between two profiles, such as taking the logarithmic ratio of the profiles as the differential profile or using the variations of the signal intensities of the profiles (*e.g.*, standard deviation) and a fractional error ratio between the multiplicative noise and signal intensity of the profiles to compute a differential profile (see, for example claims 2 and 22 of United States Patent No. 6,691,042). For example, one skilled in the art could readily compute $C_{diff}(m,k)$ as the log ratio of $C_m(k)$ and $\overline{C}$, *i.e.*, $C_{diff}(m,k) = \log\left(\frac{C_m(k)}{\overline{C}}\right) = \log(C_m(k)) - \log\overline{C}$. Because claim 1 of the instant application is enabled for using any methods known in the art for computing the difference between profiles, Applicant should not be limited to one particular mathematical operation

for computing the difference between average reference profile $\overline{C}$ and reference profile C_m. Similarly, the specification provides by way of illustration, a method for adjusting experiment profile A_m based on the differential reference profile obtained by subtraction of the differential reference profile (*e.g.*, $A'_m(k) = A_m(k) - C_{diff}(m,k)$; see, for example, page 34, lines 27-31 of the specification). $A'_m(k)$ essentially represents the difference between two profiles, $A_m(k)$ and $C_{diff}(m,k)$. As such, the methods known in the art, for example, those disclosed in United States Patent No. 6,691,042, can also be applied to the computation of $A'_m(k)$. For example, one skilled in the art could readily compute $A'_m(k)$ as the log ratio of $A_m(k)$ and $C_{diff}(m,k)$, *i.e.*, $A'_m(k) = \log\left(\frac{A_m(k)}{C_{diff}(m,k)}\right) = \log(A_m(k)) - \log(C_{diff}(m,k))$.

Therefore, the Examiner's contentions regarding claim 1 are unfounded.

The Examiner has rejected claim 12, contending that "it is unclear how to determine errors $\{\sigma''_m(k)\}$ from only data set $\{A'_m(k)\}$" (Office Action, page 5, fourth paragraph). Applicant has amended claim 12 to correct a typographical error by replacing $\{A'_m(k)\}$ with $\{A''_m(k)\}$. The amended claim 12 recites "errors $\{\sigma''_m(k)\}$ of said data set $\{A''_m(k)\}$ in said second error-corrected experiment profile A''_m." As such, the Examiner's rejection of claim 12 is obviated.

The Examiner further contends that the term "said removing step" in claim 21 in line 1 and claim 24 in lines 1 and 2 "makes it unclear if Applicant is labeling the step (a0), which is already labeled and thus provides additional unnecessary labeling or is Applicant removing step (a0) or does the method involve performing the step (a0)" (Office Action, page 5, fifth paragraph). Applicant has amended claim 21 to delete "removing nonlinearity from said first experiment profile by" such that step (a0ii) of claim 21 is now an adjusting step instead of a removing step. Applicant has also amended claim 24 to replace "said removing step (a0ii)" with "said adjusting step (a0ii)" to be consistent with the language of claim 21. As such, the rejection of claims 21 and 24 over the allegedly unclear language of "said removing step" is obviated.

The Examiner contends that the limitation "first experiment profiles" in claim 21 in lines 3, 4 and 8-10, claim 22 in line 4, and claim 24 in lines 5, 6, 11, 17, 23, 30 and 31, is unclear because claim 1 only "provides 'a first error-corrected experiment profile, A'_m,' and A_m is referred to as an experiment profile in line 4" and "[t]he specification does not define the limitation" (Office Action, page 5, sixth paragraph). The Examiner also contends that the

limitation "first reference profiles" in claim 21 in lines 3, 4 and 8-10, claim 22 in line 6, and claim 24 in lines 9, 13, 14, 20, 27 and 31, is unclear because claim 1 only "provides C_m referring to a reference profile in lines 4 and 5" and "[t]he specification does not define the limitation" (Office Action, page 6, first paragraph). Applicant has amended claim 21 to replace "first experiment profiles" with "***pre-experiment profiles***." The amended claim 21 recites that "each of said pre-experiment profiles comprises measurements or transformed measurements of said plurality of different cellular constituents measured in said sample having been subject to said first condition of said experiment, which when nonlinearity is removed therefrom, produces each said experiment profile A_m." Applicant has also amended claim 21 to replace "first reference profiles" with "***pre-reference profiles***." The amended claim 21 further recites that "each of said pre-reference profiles comprises measurements or transformed measurements of said plurality of different cellular ~~constituents~~ measured in said sample having been subject to said second condition of said experiment, which when nonlinearity is removed therefrom, produces each said reference profile C_m." The limitations "***pre-experiment profiles***" and "***pre-reference profiles***" are introduced to distinguish profiles prior to nonlinearity removal from those after nonlinearity removal (*e.g.*, experiment profile A_m and reference profile C_m). As disclosed in the specification and claimed in claim 20, in some embodiments in accordance with the present invention, experiment profile A_m and reference profile C_m are generated by removing nonlinearity from measurements or transformed measurements of said plurality of different cellular constituents. Specifically, the specification recites:

> [i]n one embodiment, an average feature intensity profile of all channels is first calculated. This average profile is then used as the reference for correcting non-linearity. Each channel profile (experiment or reference profile) is compared to the average profile. If there is nonlinearity between the two, the channel profile is adjusted to minimize the non-linearity.

See, page 38, lines 11-15 of the specification. In addition, the specification clearly discloses that "experiment and reference profiles $\{A_m, C_m\}$ can also be processed profiles in which nonlinearity is removed from raw or transformed experiment and reference profiles" (see, page 38, lines 8-9 of the specification). As such, the "raw or transformed experiment and reference profiles" prior to removal of nonlinearity have been termed "***pre-experiment profiles***" and "***pre-reference profiles***," respectively, in the claims. Although the specification does not use the terms "***pre-experiment profiles***" or "***pre-reference profiles***," the profiles to

which these terms refer are clearly described in the specification (see, for example, page 8, lines 17-22 and page 38, line 8 through page 39, line 21, and page 41, line 14, through page 42, line 16 of the specification). Accordingly, the Examiner's rejection is obviated.

Claim 21 in line 9 and claim 22 in line 2 recite the limitation "first difference." The Examiner contends that:

> [i]t is unclear whether this difference is referring to one of multiple differences involving the first experiment profile and the average profile or if first difference refers to the difference between the first experiment profile and the average profile or if other experiment profiles are involved with the average profile

(Office Action, page 6, second paragraph). Applicant has amended claim 21 to recite "adjusting each of said pre-experiment profiles based on first differences between each of said pre-experiment profiles and said average profile." As disclosed in the specification, each profile (processed or unprocessed, experiment or reference) comprises data sets of "measurements or transformed measurements of said plurality of different cellular constituents" (see, for example, page 34, lines 4-15 of the specification). As such, in claim 21 pre-experiment profiles are adjusted based on differences (termed "first differences") between the pre-experiment profiles and the average profile, *i.e.*, first differences are the differences between the measurements or transformed measurements in a pre-experiment profile and the measurements or transformed measurements in the average profile. Similarly, claim 22 also has been amended to replace "first difference" with "first differences." Thus, the Examiner's rejection has been obviated.

Claim 21 in line 12 and claim 22 in line 4 recite the limitation "second difference." The Examiner also contends that:

> [i]t is unclear whether this difference is referring to one of multiple differences involving the first reference profile and the average profile or if second difference refers to the difference between the first experiment profile and the average profile or if other reference profiles are involved with the average profile

(Office Action, page 6, third paragraph). Applicant has amended claim 21 to recite "adjusting each of said pre-reference profiles based on second differences between each of said pre-reference profiles and said average profile." As is made clear by the specification (see, for example, page 38, lines 11-15 and equations 30 and 31 on page 39 of the specification), second differences are the differences between the measurements in a pre-reference profile and the measurements in the average profile. Similarly, claim 22 also has

been amended to replace "second difference" with "second differences." Thus, the Examiner's rejection has been obviated.

Claim 29 in line 4 and claim 35 in line 4 both recite the limitation "value among the highest 10%." The Examiner contends that "[i]t is unclear what the metes and bounds of among the highest pertains" (Office Action, page 6, fourth paragraph). Applicant has amended claim 29 to recite "having a value among the highest 10% of said measurements or transformed measurements of said plurality of different cellular constituents in said data sets $\{A_m(k)\}$ and $\{C_m(k)\}$." A similar amendment has been made to claim 35. As such, the limitation as amended in claims 29 and 35 is clear and the Examiner's contention has been rendered moot.

Claim 30 in lines 6, 13, 19 and 35; claim 32 in lines 6 and 7, claim 36 in line 4, claim 42 in lines 26 and 27, claim 43 in lines 2 and 3, claim 45 in lines 4 and 5, claim 50 in line 8, and claim 53 in line 10 recite the limitation "processed experiment profile A_m." Claim 1 recites that A_m is an "experiment profile," in line 4. The Examiner contends that "[i]t is unclear which definition belongs to the symbol A_m" (Office Action, page 6, fifth paragraph). Claim 30 in lines 6-9 and 20, claim 36 in line 7, claim 42 in line 28, claim 43 in line 2, claim 50 in line 9, and claim 53 in line 11 recite the limitation "processed reference profile C_m." Claim 1 recites that C_m is a "reference profile" in lines 4 and 5. The Examiner also contends that "[i]t is unclear which definition belongs to the symbol C_m" (Office Action, page 7, first paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 are directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59[1] and 70. Specifically, methods recited in claims 30-59 and 70 specify a processing step, while claims 1-29 do not require such a processing step to be included in the claimed method. A_m and C_m are given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, A_m, and C_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the instant application expressly discloses that A_m, and C_m may be either measured profiles (*i.e.*, unprocessed profiles; see page 34, line 12 of the specification) or processed profiles (*e.g.*, as transformed, normalized or detrended profiles; see, for example,

[1] Note that claims 58 and 59 depend, *inter alia*, upon both claims 1 and 30. Claims 58 and 59 are grouped with claims 30-57, here and *infra*, to the extent claims 58 and 59 are dependent upon any of claims 30-57.

page 36, lines 19, 24 and page 38, lines 8-9 of the specification). As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 30 recites the limitation "average processed reference profile," which is represented by $\overline{C}$ in lines 8 and 21 of claim 30. Claim 1 recites an "average reference profile," also represented by the symbol of $\overline{C}$ in line 9. The Examiner thus contends that "[i]t is unclear which definition belongs to the symbol of a bar over an upper case C" (*i.e.*, $\overline{C}$) (Office Action, page 7, second paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 are directed a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods recited in claims 30-59 and 70 specify a processing step while claims 1-29 do not require such processing steps to be included in the claimed method. $\overline{C}$ is given a slightly different meaning between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, $\overline{C}$) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the instant specification discloses that an average reference profile $\overline{C}$ may be computed based on M reference profiles $\{C_m\}$ (see, for example, page 34, lines 20-22 of the specification), *i.e.*, the definition of $\overline{C}$ depends upon the definition of reference profiles C_m. As described in the specification, reference profiles can be either unprocessed profiles (*e.g.*, measured profiles; see, for example, page 34, line 12 of the specification) or processed profiles (*e.g.*, transformed, normalized and/or detrended profiles; see, for example, page 36, line 19 through page 38, line 15 of the specification). Accordingly, an average reference profile $\overline{C}$ can also be either an unprocessed average reference profile or a processed average reference profile. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 30 recites the limitation "pairs of profiles $\{XA_m, XC_m\}$" in lines 2, 3 and 5. Claim 1 recites pairs of profiles $\{A_m, C_m\}$ in lines 2 and 3. The Examiner contends that "[i]t

is unclear which symbol represents the limitation 'pairs of profiles'" (Office Action, page 7, third paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 are directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods as recited in claims 30-59 and 70 specify a processing step while claims 1-29 do not require such processing steps to be included in the claimed method. $\{A_m, C_m\}$ are given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, $\{XA_m, XC_m\}$ or $\{A_m, C_m\}$) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, in claims 1-29, a plurality of pairs of profiles is represented by $\{A_m, C_m\}$, where A_m is an experiment profile and C_m is a reference profile (see, for example, page 4, lines 24-26 of the specification). In claims 30-59 and 70, a plurality of pairs of profiles is represented by $\{XA_m, XC_m\}$, where XA_m is an experiment profile and XC_m is a reference profile, which are processed to generate processed experiment profile A_m and processed reference profile C_m, respectively (see, for example, page 10, lines 19-23 of the specification). In claims 30-59 and 70, $\{A_m, C_m\}$ represents pairs of ***processed*** profiles in order to distinguish them from the unprocessed profiles $\{XA_m, XC_m\}$. The definition of the pairs of ***processed*** profiles as such is consistently used in claims 30-59 and 70. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 30 in lines 10 and 11 and claim 45 in line 2, recites the limitation "processed profile pair $\{A_m, C_m\}$." Claim 1 recites pairs of profiles $\{A_m, C_m\}$ in lines 2 and 3. The Examiner also contends that "[i]t is unclear which definition belongs to the symbol $\{A_m, C_m\}$" (Office Action, page 7, fourth paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 are directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods as recited in claims 30-59 and 70 specify a processing step while claims 1-29 do not require such processing steps to be included in the claimed method. $\{A_m, C_m\}$ are given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, $\{A_m, C_m\}$) are provided for convenience of reference in the claims, consistent with the

disclosure in the specification. For example, the symbol $\{A_m, C_m\}$ is defined such that it can represent either pairs of profiles (which may be processed or unprocessed; see, *e.g.*, page 4, lines 24-26 of the specification) or pairs of ***processed*** profiles (*e.g.*, page 10, lines 19-23 of the specification). The use of the symbol $\{A_m, C_m\}$ to represent pairs of profiles is consistent throughout claims 1-29, and the use of the symbol $\{A_m, C_m\}$ to represent pairs of ***processed*** profiles is consistent throughout claims 30-59 and 70. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 30 in lines 31, 32 and 34, claim 45 in line 4, and claim 49 in line 2 recite the limitation "first error-corrected processed experiment profile A'_m." Claim 1 recites first error-corrected experiment profile A'_m in lines 22 and 32. The Examiner contends that "[i]t is unclear which definition belongs to the symbol A'_m" (Office Action, page 7, fifth paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 are directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods as recited in claims 30-59 and 70 specify a processing step while claims 1-29 do not require such processing steps to be included in the claimed method. A'_m is given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, A'_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the symbol A'_m represents a first error-corrected experiment profile (see, for example, equation 14 at page 34 of the specification). The definition of A'_m depends upon the experiment profile (*e.g.*, A_m) whose errors are being corrected. As previously discussed, an experiment profile A_m may be either unprocessed or processed; accordingly, the first error-corrected experiment profile A'_m computed therefrom can also be either unprocessed or processed. Claims 30-59 and 70 specify that A'_m is processed whereas claims 1-29 do not so specify since A'_m can be either unprocessed or processed in claims 1-29. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 30 in lines 32 and 33, claim 45 in line 3, claim 46 in lines 1 and 2, and claim 52 in line 2, recite the limitation "second error-corrected processed experiment profile A''_m." Claim 1 recites second error-corrected experiment profile A''_m in lines 33 and 34. The Examiner contends that "[i]t is unclear which definition belongs to the symbol A''_m" (Office Action, page 7, sixth paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 are directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods as recited in claims 30-59 and 70 specify a processing step while claims 1-29 do not require such processing steps to be included in the claimed method. A''_m is given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, A''_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the symbol A''_m represents a second error-corrected experiment profile (see, for example, page 35, line 19 through page 36, line 15 of the specification). The definition of A''_m depends upon the first error-corrected experiment profile (*e.g.*, A'_m) whose errors are being corrected. As previously discussed, a first error-corrected experiment profile A'_m may be either unprocessed or processed; accordingly, the second error-corrected experiment profile A''_m computed therefrom can also be either unprocessed or processed. Claims 30-59 and 70 specify that A''_m is processed whereas claims 1-29 do not so specify since A''_m can be either unprocessed or processed in claims 1-29. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 32 recites the limitation "when further processing does not occur" in lines 7-9. Similarly, claim 36 recites the limitation "when further processing of said data set $[TA_m(k)]$ does not occur" in lines 4,5,7 and 8. The Examiner contends that "[t]he specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation" (Office Action, page 8, first and second paragraphs). Applicant has amended claim 32 to remove the limitation "when further processing does not occur." Applicant has also amended claim 36 to remove "when further processing of said data set $[TA_m(k)]$ does not occur" and "when further processing of said data set $[TC_m(k)]$

does not occur." Thus, the Examiner's rejection of claims 32 and 36 has been obviated in light of the amendments.

Claim 39 recites the limitation "transformed experiment profiles" in lines 3 and 4. Claim 39 also recites the limitation "transformed reference profiles" in line 4. The Examiner contends that there are insufficient antecedent bases for such limitations in the claim (Office Action, page 8, second and third paragraphs). Applicant respectfully points out that the terms "transformed experiment profiles" and "transformed reference profiles" are introduced ***and*** defined in claim 39 (wherein each transformed experiment profile is defined as a profile containing the transformed data set $\{TA_m(k)\}$ and each transformed reference profile is defined as a profile containing the transformed data set $\{TC_m(k)\}$). Therefore, there is no need for any additional antecedent basis for the terms. Accordingly, the Examiner's rejection is moot.

Claim 39 in line 7 recites the limitation "first transformed experiment profiles." The Examiner contends that:

> [i]t is unclear what "first transformed experiment profile" means, wherein Claim 30 provides "a first error-corrected experiment profile, A'_m in lines 31 and 32, and A_m is referred to as a processed experiment profile in line 6. Claim 36 recites transformed data set $\{TA_m(k)\}$ is a first data set of processed experiment profile A_m, in lines 3 and 4. The specification does not define the limitation.

(Office Action, page 8, fifth paragraph). Applicant respectfully points out that claim 39 has been amended to remove the word "first" to obviate the rejection. As discussed above, the term "transformed experiment profiles" is introduced in claim 39, and a transformed experiment profile is defined in claim 39 as a profile containing the transformed data set $\{TA_m(k)\}$, which in turn is introduced in claim 38 as resulting from transforming normalized data set $\{NA_m(k)\}$. As such, the Examiner's rejection based on the limitation "first transformed experiment profiles" in claim 39 is obviated. Regarding claim 36, Applicant respectfully points out that claim 38 has been amended to depend from independent claim 30. In light of the amendment, claim 39, which depends on claim 38, no longer depends upon claim 36 through claim 37 through claim 38. As such, transformed data set $\{TA_m(k)\}$ recited in claim 36 is irrelevant to claim 39, since the meaning of the term in each claim is clear and independent of each other. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, the Examiner's rejection of claim 39 is moot.

Claim 39 in line 8, and claim 40 in line 2 recite the limitation "first difference." The Examiner contends that:

> [i]t is unclear whether this difference is referring to one of multiple differences involving the first transformed experiment profile or if first difference refers to the difference between the first transformed experiment profile and the average transformed profile or if other transformed experiment profiles are involved with the average transformed profile

(Office Action, page 8, sixth paragraph). Applicant has amended claims 39 and 40 to replace "a first difference" with "first differences." As disclosed in the specification, each profile (processed or unprocessed, experiment or reference) comprises data sets of "measurements or transformed measurements of said plurality of different cellular constituents" (see, for example, page 34, lines 4-15 of the specification). As such, in claim 39 a transformed experiment profile is adjusted based on differences (termed "first differences") between the transformed experiment profile and the average transformed profile, *i.e.*, first differences are the differences between the transformed measurements in a transformed experiment profile and the transformed measurements in the average transformed profile. The same reasoning applies to claim 40 which depends from claim 39. Thus, the Examiner's rejection has been obviated. Therefore, the Examiner's contention has been rendered moot in light of the amendment.

Claim 39 in line 10 and claim 40 in line 5 recite the limitation "second difference." The Examiner contends that:

> [i]t is unclear whether this difference is referring to one of multiple differences involving the transformed reference profile and the average profile or if second difference refers to the difference between a first transformed reference profile and the average profile or if other transformed reference profiles are involved with the average profile.

(Office Action, page 9, first paragraph). Applicant has amended claims 39 and 40 to replace "a second difference" with "second differences." As disclosed in the specification, each profile (processed or unprocessed, experiment or reference) comprises data sets of "measurements or transformed measurements of said plurality of different cellular constituents" (see, for example, page 34, lines 4-15 of the specification). As such, in claim 39 a transformed reference profile is adjusted based on differences (termed "second differences") between a transformed reference profile and the average transformed profile, *i.e.*, first differences are the differences between the transformed measurements in a

transformed reference profile and the transformed measurements in the average transformed profile. The same reasoning applies to claim 40 which depends from claim 39. Thus, the Examiner's rejection has been obviated.

Claim 42 in line 1 recites the limitation "said adjusting step." The Examiner contends that "[t]he term makes it unclear if Applicant is labeling the step (a2), which is already labeled and thus provides additional unnecessary labeling or is Applicant performing a method involving the adjustment of step (a2)" (Office Action, page 9, second paragraph). Applicant has amended claim 42 to replace "adjusting transformed measurements..." with "computing corrected transformed measurements...." Therefore, the Examiner's rejection has been obviated.

Claim 42 recites the limitation "when further processing of said data set $\{TA_m^{corr}(k)\}$ does not occur" in line 27. The Examiner contends that "[t]he specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation." Claim 42 also recites the limitation "when further processing of said data set $\{TC_m^{corr}(k)\}$ does not occur" in line 29. The Examiner also contends that "[t]he specification and claims do not define the metes and bounds of this limitation nor would one skilled in the art know when to require this limitation" (Office Action, page 9, third and fourth paragraphs). Applicant has amended claim 42 to remove the limitations "when further processing of said data set $\{TA_m^{corr}(k)\}$ does not occur" and "when further processing of said data set $\{TC_m^{corr}(k)\}$ does not occur." Therefore, the Examiner's rejection of claim 42 has been obviated in light of the amendments.

Claim 66 recites the limitation "experiment profile A_m" in lines 2, 6, 11, 12 and 24. Claim 30 in lines 3, 22 and 23, claim 31 in line 2, claim 33 in line 2, and claim 34 in line 2 recite that XA_m is an experiment profile. The Examiner contends that "[i]t is unclear which symbol should represent 'an experiment profile'" (Office Action, page 9, fifth paragraph). Claim 66 recites the limitation "reference profile C_m" in lines 10 and 12. Claim 30 in line 3 and 23, claim 31 in line 2, claim 32 in line 8, claim 33 in line 2, claim 34 in line 2, and claim 56 in line 1 recite the limitation "reference profile XC_m." The Examiner contends that "[i]t is unclear which symbol should represent the limitation 'a reference profile'" (Office Action, page 10, second paragraph). Applicant respectfully points out that, similar to claims 1-29, claim 66 is directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods recited in claims 30-59 and 70

specify a processing step while claim 66, similar to claims 1-29, does not require a processing step to be included in the claimed method. A_m and C_m are given slightly different meanings between these two groups of claims to reflect the differences in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, XA_m, XC_m, A_m, and C_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the symbols A_m and C_m are defined as either profiles (which may be processed or unprocessed; see, *e.g.*, page 4, lines 24-26 of the specification) in one group of claims (claims 1-29 or claim 66) or as ***processed*** profiles (*e.g.*, page 10, lines 19-23 of the specification) in another group of claims (claims 30-59 and 70). In claims 30-59 and 70, the symbols XA_m and XC_m are defined as experiment profiles and reference profiles prior to a processing process in order to distinguish them from the ***processed*** experiment profiles A_m and ***processed*** reference profiles C_m referred to in the same group of claims. As such, A_m, C_m, XA_m, and XC_m are clearly defined. Claims 30-59 and 70 specify that A_m and C_m are processed whereas claim 66 does not so specify since A_m and C_m can be either unprocessed or processed in claim 66. Thus, in claim 66, the symbols A_m and C_m are used to represent experiment profiles and reference profiles (which may be processed or unprocessed), respectively. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims, since each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection of claim 66 should be withdrawn.

Claim 66 recites the limitation "condition A_m" in line 15. Claim 30 in lines 6, 13, 19 and 35; claim 32 in lines 6 and 7, claim 36 in line 4, claim 42 in lines 26 and 27, claim 43 in lines 2 and 3, claim 45 in lines 4 and 5, claim 50 in line 8, and claim 53 in line 10, recite the limitation "processed experiment profile A_m." Claim 1 in line 4 recites that A_m is an experiment profile. The Examiner contends that "[i]t is unclear which definition belongs to the symbol A_m" (Office Action, page 10, first paragraph). Applicant has amended claim 66 to replace "condition A_m" with "a first condition." Thus, claims 30-59 and 70 specify that A_m is a processed experiment profile whereas claims 1-29 and 66 does not so specify since A_m can be either unprocessed or processed in these claims. Accordingly, the definition of the symbol A_m is clear. Therefore, the Examiner's rejection has been obviated.

Claim 66 recites the limitation "average reference profile $\overline{C}$" (*i.e.*, the symbol of a bar over an upper case C) in line 7. Claim 30 recites the limitation "average processed

reference profile $\overline{C}$ "(also a bar over an upper case C) in line 8 and 21. The Examiner contends that "[i]t is unclear which definition belongs to the symbol of a bar over an upper case C" (Office Action, page 10, third paragraph). Applicant respectfully points out that, similar to claims 1-29, claim 66 is directed to a method that is a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods recited in claims 30-59 and 70 specify a processing step while claim 66, similar to claims 1-29, does not require a processing step to be included in the claimed method. $\overline{C}$ is given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, $\overline{C}$) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the instant specification discloses that an average reference profile $\overline{C}$ may be computed based on M reference profiles C_m (see, for example, page 34, lines 20-22 of the specification), *i.e.*, the definition of $\overline{C}$ depends upon the definition of reference profiles C_m. As described in the specification, reference profiles can be either unprocessed profiles (*e.g.*, measured profiles; see, for example, page 34, line 12 of the specification) or ***processed*** profiles (*e.g.*, transformed, normalized and/or detrended profiles; see, for example, page 36, line 19 through page 38, line 15 of the specification). Accordingly, an average reference profile $\overline{C}$ can also be either an unprocessed average reference profile or a ***processed*** average reference profile. Claims 30-59 and 70 specify that $\overline{C}$ is a processed average reference profile whereas claim 66 does not so specify since $\overline{C}$ can be either unprocessed or processed in claim 66. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 66 recites the limitation "profile pair $\{A_m, C_m\}$" in line 8. Claim 30 in lines 10 and 11 and claim 45 in line 2 recite the limitation "processed profile pair $\{A_m, C_m\}$." The Examiner contends that "[i]t is unclear which definition belongs to the symbol $\{A_m, C_m\}$" (Office Action, page 10, fourth paragraph). Applicant respectfully points out that, similar to claims 1-29, claim 66 is also directed to a method that is a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, the methods recited in claims 30-59 and 70 specify a processing step while claim 66, similar

to claims 1-29, does not require a processing step to be included in the claimed method. $\{A_m, C_m\}$ is given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, $\{A_m, C_m\}$) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the symbol of $\{A_m, C_m\}$ is defined such that it can represent either pairs of profiles (which can be either processed or unprocessed; see, *e.g.*, page 4, lines 24-26 of the specification) or pairs of ***processed*** profiles (*e.g.*, page 10, lines 19-23 of the specification). Claims 30-59 and 70 specify that $\{A_m, C_m\}$ are pairs of processed profiles whereas claim 66 does not so specify since $\{A_m, C_m\}$ can be either unprocessed or processed in claim 66. Thus, in claim 66, the symbol $\{A_m, C_m\}$ is used to represent pairs of profiles (which may be processed or unprocessed), and in claims 30-59 and 70, the symbol $\{A_m, C_m\}$ is used to represent pairs of ***processed*** profiles. As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims, since each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection of claim 66 should be withdrawn.

Claim 66 recites the limitation "first error-corrected experiment profile A'_m" in lines 21, 23 and 24. Claim 30 in lines 31, 32 and 34, claim 45 in line 4 and claim 49 in line 2 recite the limitation "first error-corrected processed experiment profile A'_m." Claim 1 recites the term "first error-corrected experiment profile A'_m." The Examiner contends that "[i]t is unclear which definition belongs to the symbol A'_m" (Office Action, page 10, fifth paragraph). Applicant respectfully points out that, similar to claims 1-29, claim 66 is also directed to a different embodiment of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, methods recited in claims 30-59 and 70 specify a processing step while claim 66, similar to claims 1-29, does not require a processing step to be included in the claimed method. A'_m is given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, A'_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. For example, the symbol A'_m represents a first error-corrected experiment profile (see, for example, equation 14 at page 34 of the specification). The definition of A'_m depends upon the experiment profile (*e.g.*, A_m) whose errors are being corrected. As previously discussed, an experiment

profile A_m may be either unprocessed or ***processed***; accordingly, the first error-corrected experiment profile A'_m computed therefrom can also be either unprocessed or ***processed***. Claims 30-59 and 70 specify that A'_m is processed whereas claim 66 does not so specify since A'_m can be either unprocessed or processed in claim 66. Thus, in claim 66, the symbol A'_m is used to represent a first error-corrected experiment profile (which may be processed or unprocessed). As such, the usage of the symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims, since each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Claim 66 recites the limitation "second error-corrected experiment profile A''_m" in lines 22 and 23. Claim 30 in lines 32 and 33, claim 45 in line 3, claim 46 in lines 1 and 2, and claim 52 in line 2 recite the limitation "second error-corrected processed experiment profile A''_m." Claim 1 recites the term "second error-corrected experiment profile A''_m" in lines 33 and 34. The Examiner contends that "[i]t is unclear which definition belongs to the symbol A_m" (Office Action, page 11, first paragraph). Applicant respectfully points out that, as discussed hereinabove, claims 1-29 and claim 66 are directed to different embodiments of the invention than that recited in claim 30 and its dependent claims 31-59 and 70. Specifically, the methods recited in claims 30-59 and 70 specify a processing step while claims 1-29 and claim 66 do not require such processing steps to be included in the claimed method. A''_m is given slightly different meanings between these two groups of claims to reflect this difference in the claimed methods between the two groups of claims. As discussed above, the symbols (*e.g.*, A''_m) are provided for convenience of reference in the claims, consistent with the disclosure in the specification. The symbol A''_m represents a second error-corrected experiment profile (see, for example, page 35, line 19 through page 36, line 15 of the specification). The definition of A''_m depends upon the nature of the first error-corrected experiment profile (*e.g.*, A'_m) used to produce it. As previously discussed, a first error-corrected experiment profile A'_m may be either unprocessed or processed; accordingly, the second error-corrected experiment profile A''_m computed therefrom can also be either unprocessed or processed. Claims 30-59 and 70 specify that A'_m is processed whereas claim 66 does not so specify since A'_m can be either unprocessed or processed in claim 66. Thus, in claim 66, the symbol A''_m is used to represent a second error-corrected experiment profile (which may be processed or unprocessed). As such, the usage of the

symbols in the claims is consistent with the embodiments disclosed in the specification, and there is no lack of clarity arising from the symbols used in the claims. Each claim makes clear to one skilled in the art the meaning of the symbols contained therein. Therefore, Applicant respectfully maintains that the rejection should be withdrawn.

Finally, claim 70 recites the limitation "experiment profile XA_m" in line 3 and the limitation "experiment profile XC_m" in line 5. Examiner contends that "[i]t is unclear which symbol belongs to the limitation 'experiment profile'" (Office Action, page 11, second paragraph). Applicant has amended claim 70 to remove the typographical error by replacing "experiment profile XC_m" in line 5 with "reference profile XC_m." As such, the Examiner's rejection of claim 70 based on the unclear limitation of experiment profile has been rendered moot in light of the amendment.

CONCLUSION

Applicants respectfully request entry of the foregoing amendments and remarks into the file of the above-identified application. Applicant believes that all the pending claims are in condition for allowance. Withdrawal of the Examiner's rejections and allowance of the application are respectfully requested.

Respectfully submitted,

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